



U.S. Department of Transportation
National Highway Traffic Safety
Administration

NHTSA
People Saving People
www.nhtsa.dot.gov

What a Difference Five Years Made!

1994–Present

Issued the Most Significant Vehicle Safety Rules in a Decade, Including Advanced Head Injury Protection for Cars, Universal Child Restraint Anchorages, and Underride Protection and Anti-Lock Brakes for Trucks.

Goal 6: Mitigate the consequences of motor vehicle crashes.

Over the past five years, Safety Performance Standards (NPS) has strived to work more closely with industry, consumer groups and the public to provide information as well as listen to their concerns and suggestions. Here are three of their success stories.

HEAVY VEHICLE ABS

March 10, 1995. NHTSA published a final rule amending Federal Motor Vehicle Safety Standard 105, *Hydraulic Brake Systems*, and Standard 121, *Air Brake Systems*, to require medium and heavy vehicles with a Gross Vehicle Weight Rating greater than 10,000 pounds to be equipped with ABS to improve directional stability and control during braking.

ABS will reduce the incidence of loss-of-control type crashes such as jackknife, skidding and spinning crashes caused during braking.

On the same day, companion final rules were issued to reinstate stopping distance requirements for air-braked vehicles and to implement stopping distance requirements for hydraulic-braked medium and heavy vehicles. All heavy vehicles now being manufactured are required to be equipped with ABS.

This rulemaking is expected to reduce vehicle occupant fatalities and injuries by as much as 500 fatalities and 27,000 injuries, respectively, annually. In addition, it is expected to reduce property damage caused by such crashes by as much as \$553 million annually.

HEAD INJURY PROTECTION



August 18, 1995. The agency published a final rule which amended Federal Motor Vehicle Safety Standard (FMVSS) 201, *Occupant Protection in Interior Impact*.

This rule addresses the approximately 2,400 occupants of light vehicles (passenger cars and light trucks) killed and 60,000 injured each year in crashes that cause their heads to strike upper interior components of the vehicle (pillars, side rails, roof headers, etc.).

This rule will require manufacturers to provide improved head protection in all light vehicles. The requirements are phased in with 10 percent of the vehicles required to meet the standard in model year 1999 and all vehicles to meet the standard in model year 2002.

The head protection standard was hailed in 1995 as the most significant new safety regulation in a decade.

NHTSA estimated that each year the regulation would save up to 1,200 lives and prevent up to 975 serious head injuries.

August 4, 1998. NHTSA amended FMVSS 201 allowing automakers to install dynamically deploying interior head protection systems that would provide additional safety in side impact crashes.

Those revisions would enable automakers to quickly install new, life-saving technology to their vehicles that would improve overall motor vehicle safety by a significant margin, especially in more serious crashes.

The dynamically deploying systems are known at present as “Head Protection Systems” and “Inflatable Curtains.” They are air bag-like devices designed to deploy during side impacts to provide improved head protection. The dynamic systems also will reduce the possibility of side window ejections.

Vehicles equipped with such dynamic systems will have to comply with the 18 mph side-to-pole impact requirements. NHTSA estimated that, depending on the number of vehicles on which they are introduced, the new devices can save as many as 250 additional lives each year.

IMPROVED CHILD SAFETY

NHTSA estimates that child restraints are potentially 71 percent effective in reducing the likelihood of death, however, improper installation reduces effectiveness in preventing fatalities to 59 percent.

March 5, 1999. NHTSA published a final rule establishing a new Federal motor vehicle safety standard (FMVSS 225, *Child Restraint Anchorage Systems*) that requires motor vehicle manufacturers to provide vehicles with child restraint anchorage systems that are standardized and independent of the vehicle seat belts.

The new independent system will have two lower anchorages, and one upper anchorage. Each lower anchorage will consist of a rigidly mounted, about 1/4 inch diameter, round rod or “bar” onto which a hook, a jaw-like buckle or other connector can be snapped.

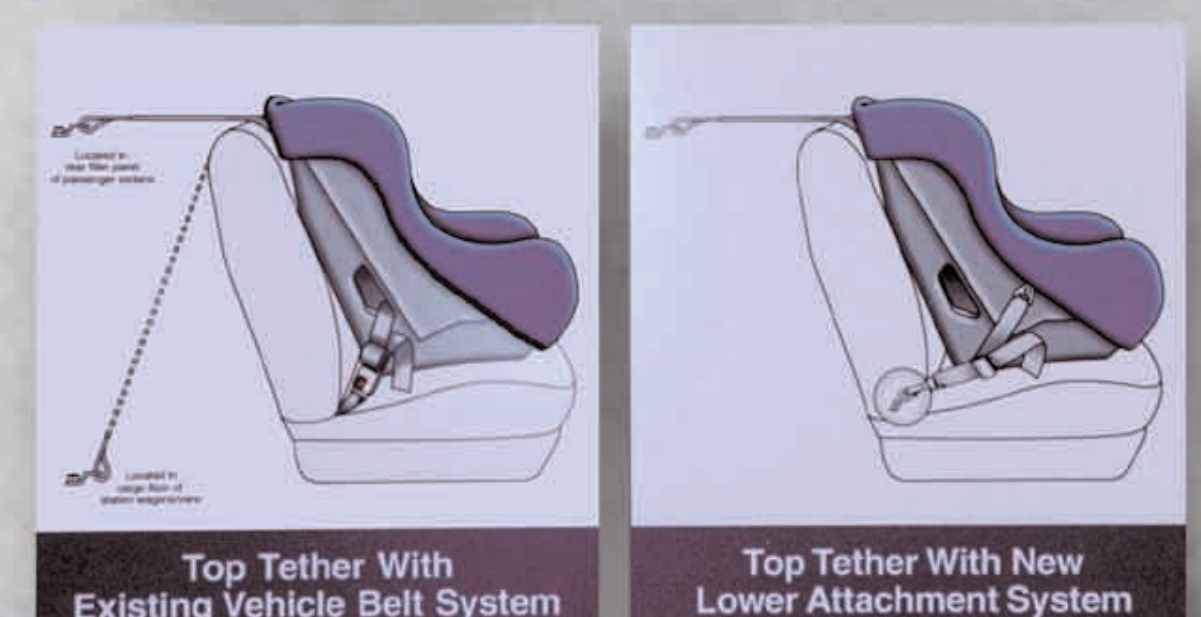
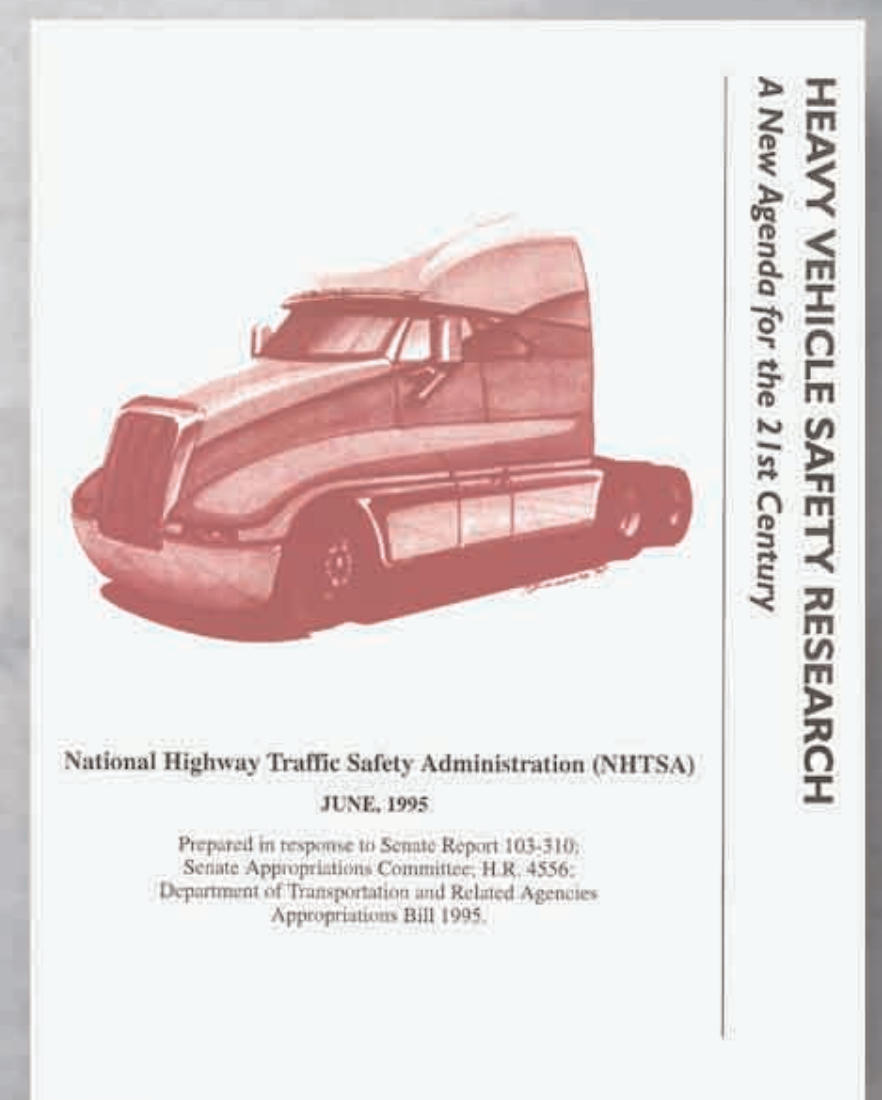
These lower anchorages will be located in the part of the vehicle seat where the seat cushion and seat back meet. The upper anchorage will be a ring-like object on the rear window shelf to which the upper tether of a child restraint system can be attached.

The new independent anchorage system will be required to be installed at two rear seating positions. Additionally, in vehicles equipped with at least three designated seating positions in the rear seat or second and third row of seats, a third tether anchorage will be required at a location other than an outboard seating position.

The final rule also amends FMVSS 213, *Child Restraint Systems*, to require child restraints to be equipped with means for attaching to the new independent anchorage system, and establishes stricter limits on the distance that the head of a dummy seated in a child restraint may move forward during a test simulating a frontal vehicle crash (head excursion limit).

The new anchorage system will be phased in over a three-year period, beginning in September 1999. The majority of new cars manufactured after September 1, 1999, will be required to be equipped with the upper anchorage, while the lower attachments will be required on all new vehicles manufactured after September 1, 2002.

This rulemaking is expected to reduce vehicle occupant fatalities and injuries by as much as 50 fatalities and 2,929 injuries, respectively, annually.



“Team work is the heart of any successful operation. When we set our goals in the Strategic Plan back in 1994, we built in a foundation that empowered the NHTSA employee and sparked individual creativity and innovation. The resulting accomplishments of working as a team over the past half decade have been nothing short of magnificent. Everyone at NHTSA should feel we are moving forward. Because we are. Each one of you should feel very proud of your individual contributions to the overall momentum that is making highways safer for us all. We are, after all, people saving people. It’s what we do – and what all of you do so well.”

Robert F. Hart

Congratulations and Thank You to All Members of the NHTSA Family for a Job Well Done!

Robert F. Hart, Dan Siskind, Rae Tyson, Ken Weinstein, Ray Owens, Jonathan J. ...